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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/822,684	03/30/2001	David I. Poisner	42390P10577	9233
8791	7590	10/21/2004	EXAMINER	
BLAKELY SOKOLOFF TAYLOR & ZAFMAN 12400 WILSHIRE BOULEVARD SEVENTH FLOOR LOS ANGELES, CA 90025-1030			CHEN, TSE W	
			ART UNIT	PAPER NUMBER
			2116	

DATE MAILED: 10/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/822,684	POISNER ET AL.	
	Examiner	Art Unit	
	Tse Chen	2116	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8,13-20 and 25-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5,8,13-17,20 and 25-29 is/are rejected.
- 7) ☒ Claim(s) 6,7,18,19 and 30 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. It is hereby acknowledged that the following papers have been received and placed of record in the file: Amendment dated August 6, 2004.
2. Applicant has elected claims 1-8, 13-20, and 25-30 for examination. Applicant has canceled claims 9-12, 21-24, and 31-34.

Claim Objections

3. Claims 3-5, 15-17, 27-29 are objected to because of the following informalities:
 - As to claims 3, 15 and 27, “the first mode” should be “a first mode” as there is no established antecedent in claim 1.
 - As to claims 4, 16 and 28, “the second, third, and fourth modes” should be “a second, third, and fourth modes” as there is no established antecedent in claim 1.
 - As to claims 5, 17 and 29, “the second and third modes” should be “a second and third modes” as there is no established antecedent in claim 1.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Re Claims 1 and 13

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5. Claims 1 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wydall et al., US Patent 6117186, hereinafter Wydall.

6. In re claim 1, Wydall discloses a method [col.7, ll.11-23] comprising:

- Configuring a mode [auto insert notification].
- Detecting insertion of a medium into a drive [cdrom] based on the mode.
- Starting a program [autorun.inf] on the medium when the insertion is detected.

7. The Examiner hereby takes Official Notice that it is well known in the art to store and utilize a mode indicator in machine word format.

8. Wydall discloses each and every limitation of the claim, except that the mode is a word. However, mode indicators like other binary information are prevalently stored and utilized in machine word format for processing efficiency. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize mode words in the system disclosed by Wydall. One of ordinary skill in the art would have been motivated to make such a combination because of processing efficiency.

9. As to claim 13, Wydall discloses the method as discussed above in reference to claim 1. Furthermore, Wydall discloses the computer program product comprising a machine useable medium [hard disk 8] having computer program code [operating system] embedded therein, the computer program product having computer readable program code to perform the method [col.5, l.55 – col.6, l.7].

Re Claims 2 and 14

10. Claims 2 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wydall as applied to claims 1 and 13 above, and further in view of non-patent material message-ID

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<marnoldDzIG2w.MqJ@netcom.com> submitted by Matt Arnold to newsgroup comp.os.ms-windows.programmer.misc, hereinafter Arnold.

11. Wydall discloses each and every limitation of the claim as discussed above in reference to claim 1. Wydall did not disclose explicitly configuring the mode word in one of multiple modes.

12. Arnold discloses a method comprising configuring a mode word in one of first, second, third, and fourth mode [e.g., DRIVE_REMOVABLE, DRIVE_REMOTE, DRIVE_CDROM, DRIVE_RAMDISK].

13. It would have been obvious to one of ordinary skill in the art, having the teachings of Wydall and Arnold before him at the time the invention was made, to use the multiple modes word disclosed by Arnold for the system disclosed by Wydall as the multiple modes word taught by Arnold is a well known concept for use with any system with multiple modes. One of ordinary skill in the art would have been motivated to make such a combination as it provides a way to indicate multiple different modes [Arnold].

Re Claims 3 and 15

14. Claims 3 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wydall as applied to claim 1 and 13 above, and further in view of non-patent material message-ID <01bda103\$140c82e0\$4ffk4ecl@pluto> submitted by Homecooking to newsgroup comp.publish.cdrom.hardware, hereinafter Homecooking.

15. Wydall discloses each and every limitation of the claim as discussed above in reference to claim 1. Wydall did not disclose explicitly periodically polling the drive.

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16. Homecooking discloses a method wherein detecting the insertion comprises periodically polling [query] the drive when the mode word is configured in the first mode [auto insert notification].

17. It would have been obvious to one of ordinary skill in the art, having the teachings of Wydall and Homecooking before him at the time the invention was made, to use the teachings of Homecooking as the periodic polling feature is a well-known feature for use with the system of Wydall. One of ordinary skill in the art would have been motivated to make such a combination as it provides a way to detect the insertion of a medium [Homecooking].

Re Claims 4 and 16

18. Claims 4 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wydall and Arnold as applied to claims 1, 2 and 13 above, and further in view of McGee et al., US 5528566, hereinafter McGee, and Pletcher et al., US Patent 5694606, hereinafter Pletcher.

19. Wydall and Arnold disclose each and every limitation of the claim as discussed above in reference to claims 1, 2 and 13. Wydall and Arnold did not disclose explicitly servicing an interrupt indicating the insertion of the medium when the mode is configured in one of multiple modes.

20. Regarding an interrupt indicating the insertion of the medium, McGee discloses a method wherein detecting the insertion comprises servicing an interrupt indicating the insertion of the medium [optical disc] [col.9, l.63 – col.10, l.19].

21. It would have been obvious to one of ordinary skill in the art, having the teachings of Wydall and McGee before him at the time the invention was made, to use the interrupt indicating the insertion of the medium as disclosed by McGee for the system disclosed by Wydall as the

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interrupt taught by McGee is a well known concept for use with the system of Wydall. One of ordinary skill in the art would have been motivated to make such a combination as it provides a way to indicate the insertion of the medium.

22. Regarding servicing an interrupt in one of the multiple modes, Pletcher discloses the method that comprises servicing an interrupt when the mode is configured in one of multiple modes [processor modes] [col.4, ll.41 –58].

23. It would have been obvious to one of ordinary skill in the art, having the teachings of Wydall, Arnold, McGee and Pletcher before him at the time the invention was made, to include the teachings of Pletcher with the system disclosed by Wydall, McGee and Arnold to provide the method wherein detecting the insertion comprises servicing an interrupt indicating the insertion of the medium when the mode is configured in one of a second, third, and fourth modes. One of ordinary skill in the art would have been motivated to make such a combination as it provides a way to reduce interrupt handling overhead [Pletcher: col.4, ll.31-38].

Re Claims 5 and 17

24. Claims 5 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wydall and Arnold as applied to claims 1, 2 and 13 above, and further in view of McGee, and Benhase et al., US Patent 5463752, hereinafter Benhase.

25. Wydall and Arnold disclose each and every limitation of the claim as discussed above in reference to claims 1, 2 and 13. Wydall and Arnold did not discuss the details of a polling circuit.

26. McGee discloses a polling circuit [optical sensor] detecting the insertion of the medium [disc] [col.9, l.63 – col.10, l.19; col.15, ll.39-57].

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27. Benhase discloses a method wherein servicing an interrupt comprises servicing the interrupt [signal] generated by a polling circuit in a chipset [independent polling means] [col.4, ll.24-32; col.4, l.50 – col.5, l.8].

28. It would have been obvious to one of ordinary skill in the art, having the teachings of Wydall, Arnold, McGee and Benhase before him at the time the invention was made, to include the teachings of McGee and Benhase with the system disclosed by Wydall and Arnold to provide the method wherein servicing the interrupt comprises servicing the interrupt generated by a polling circuit in a chipset when the mode is configured in one of a second and third modes, the polling circuit detecting the insertion of the medium. One of ordinary skill in the art would have been motivated to make such a combination as it provides a way to detect the insertion of the medium [McGee: col.9, l.63 – col.10, l.19] and free up some processor time for other activities [Benhase: col.2, ll.31-38].

Re Claims 8 and 20

29. Claims 8 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wydall, Arnold, McGee and Pletcher as applied to claim 4 and 13 above, and further in view of Hoffman et al., US 5414858, hereinafter Hoffman.

30. Wydall, Arnold, McGee and Pletcher disclose each and every limitation of the claim as discussed above in reference to claim 4 and 13. Wydall, Arnold, McGee and Pletcher did not discuss servicing the interrupt generated by the drive.

31. Hoffman discloses a method wherein servicing an interrupt comprises servicing an interrupt generated by a drive [device] [fig.3].

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32. It would have been obvious to one of ordinary skill in the art, having the teachings of Hoffman, Wydall, Arnold, McGee and Pletcher before him at the time the invention was made, to include the teachings of Hoffman with the system disclosed by Wydall, Arnold, McGee and Pletcher to provide the method of claim 4 wherein servicing the interrupt comprises servicing the interrupt generated by the drive. One of ordinary skill in the art would have been motivated to make such a combination as it provides an efficient way to operate a system with peripheral devices by utilizing multiple modes based on interrupt and polling mechanisms [Hoffman: col.2, ll.1-12].

Re Claim 25

33. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wydall as applied to claim 1 above, and further in view of Sarkarda, US Patent 6189050.

34. Wydall discloses each and every limitation of the claim as discussed above in reference to claim 1. In particular, Wydall discloses a system [fig.1] comprising:

- A processor [4].
- A memory [disk 8] coupled to the processor to store instruction code [operating system], the instruction code, when executed by the processor, causing the processor to execute the method discussed above in reference to claim 1 [col.5, l.55 – col.6, l.7].

35. Wydall did not discuss a chipset to control the drive.

36. Sarkarda discloses a system [100] comprising:

- A chipset [pci/ide bus controller] coupled to the processor to control a drive [floppy disk device 112] [col.5, ll.11-24].

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37. It would have been obvious to one of ordinary skill in the art, having the teachings of Wydall and Sarkada before him at the time the invention was made, to include the teachings of Sarkada with the system disclosed by Wydall to provide the system of claim 25. One of ordinary skill in the art would have been motivated to make such a combination as it provides an efficient way to detect an insertion of a medium and take appropriate actions in response to the detection [Sarkada: col.4, ll.52-65; Sarkada would increase the efficiency of Wydall with a separate control chip to service the drive].

Re Claim 26

38. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wydall and Sarkada as applied to claim 25 above, and further in view of Arnold.

39. Wydall and Sarkada disclose each and every limitation of the claim as discussed above in reference to claim 25. Wydall and Sarkada did not disclose explicitly configuring the mode word in one of multiple modes.

40. Arnold discloses a method comprising configuring a mode word in one of first, second, third, and fourth mode [e.g., DRIVE_REMOVABLE, DRIVE_REMOTE, DRIVE_CDROM, DRIVE_RAMDISK].

41. It would have been obvious to one of ordinary skill in the art, having the teachings of Wydall, Sarkada and Arnold before him at the time the invention was made, to use the multiple modes word disclosed by Arnold for system disclosed by Wydall and Sarkada as the multiple modes word taught by Arnold is a well known concept for use with any system with multiple modes. One of ordinary skill in the art would have been motivated to make such a combination as it provides a way to indicate multiple different modes [Arnold].

Re Claim 27

42. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wydall and Sarkada as applied to claim 25 above, and further in view of Homecooking.

43. Wydall and Sarkada disclose each and every limitation of the claim as discussed above in reference to claim 25. Wydall and Sarkada did not disclose explicitly periodically polling the drive.

44. Homecooking discloses a method wherein detecting the insertion comprises periodically polling [query] the drive when the mode word is configured in the first mode [auto insert notification].

45. It would have been obvious to one of ordinary skill in the art, having the teachings of Wydall, Sarkada and Homecooking before him at the time the invention was made, to use the teachings of Homecooking as the periodic polling feature is a well-known feature for use with the system of Wydall and Sarkada. One of ordinary skill in the art would have been motivated to make such a combination as it provides a way to detect the insertion of a medium [Homecooking].

Re Claim 28

46. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wydall, Sarkada, and Arnold as applied to claims 25 and 26 above, and further in view of McGee and Pletcher.

47. Wydall, Sarkada and Arnold disclose each and every limitation of the claim as discussed above in reference to claims 25 and 26. Wydall, Sarkada and Arnold did not disclose explicitly servicing an interrupt indicating the insertion of the medium when the mode is configured in one of multiple modes.

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48. Regarding an interrupt indicating the insertion of the medium, McGee discloses a method wherein detecting the insertion comprises servicing an interrupt indicating the insertion of the medium [optical disc] [col.9, l.63 – col.10, l.19].

49. It would have been obvious to one of ordinary skill in the art, having the teachings of Wydall, Sarkada, Arnold and McGee before him at the time the invention was made, to use the interrupt indicating the insertion of the medium as disclosed by McGee for the system disclosed by Wydall, Sarkada and Arnold as the interrupt taught by McGee is a well known concept for use with the system of Wydall, Sarkada and Arnold. One of ordinary skill in the art would have been motivated to make such a combination as it provides a way to indicate the insertion of the medium.

50. Regarding servicing an interrupt in one of the multiple modes, Pletcher discloses the method that comprises servicing an interrupt when the mode is configured in one of multiple modes [processor modes] [col.4, ll.41 –58].

51. It would have been obvious to one of ordinary skill in the art, having the teachings of Wydall, Sarkada, Arnold, McGee and Pletcher before him at the time the invention was made, to include the teachings of Pletcher with the system disclosed by Wydall, Sarkada, McGee and Arnold to provide the method wherein detecting the insertion comprises servicing an interrupt indicating the insertion of the medium when the mode is configured in one of a second, third, and fourth modes. One of ordinary skill in the art would have been motivated to make such a combination as it provides a way to reduce interrupt handling overhead [Pletcher: col.4, ll.31-38]

Re Claim 29

52. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wydall, Sarkada, and Arnold as applied to claims 25 and 25 above, and further in view of McGee and Benhase.

53. Wydall, Sarkada and Arnold disclose each and every limitation of the claim as discussed above in reference to claims 25 and 26. Wydall, Sarkada and Arnold did not discuss the details of a polling circuit.

54. McGee discloses a polling circuit [optical sensor] detecting the insertion of the medium [disc] [col.9, l.63 – col.10, l.19; col.15, ll.39-57].

55. Benhase discloses a method wherein servicing an interrupt comprises servicing the interrupt [signal] generated by a polling circuit in a chipset [independent polling means] [col.4, ll.24-32; col.4, l.50 – col.5, l.8].

56. It would have been obvious to one of ordinary skill in the art, having the teachings of Wydall, Sarkada, Arnold, McGee and Benhase before him at the time the invention was made, to include the teachings of McGee and Benhase with the system disclosed by Wydall, Sarkada and Arnold to provide the method wherein servicing the interrupt comprises servicing the interrupt generated by a polling circuit in a chipset when the mode is configured in one of a second and third modes, the polling circuit detecting the insertion of the medium. One of ordinary skill in the art would have been motivated to make such a combination as it provides a way to detect the insertion of the medium [McGee: col.9, l.63 – col.10, l.19] and free up some processor time for other activities [Benhase: col.2, ll.31-38].

Allowable Subject Matter

57. Claims 6-7, 18-19 and 30 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

58. The following is a statement of reasons for the indication of allowable subject matter: the claims may be allowable because none of the references cited, either alone or in combination discloses or renders obvious a method of claim 5, a computer program product of claim 17, and a system of claim 29, wherein "servicing the interrupt comprises checking a status bit set by the polling circuit when the mode is configured in the second mode, updating a flag in a memory based on the status bit, and responding to a poll request by an operating system.

Response to Arguments

59. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

60. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The additionally cited US patent documents describe various methods and systems for interrupt handling and polling associated with well-known attributes of detecting the insertion of a medium.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tse Chen whose telephone number is (571) 272-3672. The examiner can normally be reached on Monday - Friday 9AM - 5PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne Browne can be reached on (571) 272-3670. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tse Chen
September 27, 2004


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